

AMENDMENTS

In the Claims:

Please cancel claim 14 without prejudice and add new claims 19-40 as shown in the following claim listing.

Claims 1-9 (Cancelled)

10. (Previously amended) The repair method of claim 12 wherein said clips are attached to said ring in circumferential directions along said ring.

11. (Cancelled)

12. (Previously amended) A mitral valve repair method comprising the steps of:
providing clips each having two end points which are separated from each other when in an open configuration and tending to return to a naturally closed configuration by reducing distance between said end points when in said open configuration;

placing an annuloplasty ring about an annulus; and

attaching said ring around said annulus by causing said clips to pass through said ring,

wherein each of said clips has a tissue-penetrating needle releasably attached through a flexible member to one of said two end points thereof and said step of attaching said ring comprises the steps of:

causing the needle associated with said each clip to penetrate and pass through said ring and tissue of said annulus; and

thereafter pulling said flexible member to position said each clip so as to hold said ring to said tissue, wherein said needle is caused to pass through said ring at two positions separated by a shorter distance, to penetrate said tissue at one position and to come out therefrom at another position separated from said one position by a larger distance than said shorter distance.

13. (Previously amended) The repair method of claim 12 wherein said clips are each generally U-shaped when in said open configuration, comprising a wire of a shape memory material.

Claims 14-18 (Cancelled)

19. (New) A method for repairing a valve in a patient's heart comprising:
providing a plurality of clips, each having a first end, a second end, an open configuration and a closed configuration;

manipulating the first end of each clip with the clip in said open configuration to penetrate through an annuloplasty ring at a first ring position, into the valve annulus of one the valve annulae of a patient's heart at a first annulus position, out from the valve annulus at a second annulus position, and through the ring at a second ring position where the distance between the first and second annulus positions associated with at least one of said clips is greater than the distance between the first and second ring positions associated with said at least one of said clips; and

facilitating movement of each clip toward said closed configuration.

20. (New) The method of claim 19 including leading the first end of each clip through the ring and annulus with a needle coupled thereto.

21. (New) The method of claim 19 including leading the first end of said clips through the ring and annulus with a plurality of needles, each needle being coupled to the first end of one of said clips through a flexible member.

22. (New) The method of claim 21 including pulling the flexible member associated with each clip so that the first end of each clip passes through the ring twice.

23. (New) The method of claim 22 including stopping the second end of each clip from passing through the ring at a respective first ring position with a stopper, which extends from the clip and engages the ring, and pulling each of the flexible members to contract tissue of the valve annulus between each first and second annulus position pair.

24. (New) The method of claim 19 including positioning each of the clips to extend along the ring in a circumferential direction.

25. (New) The method of claim 24 including contracting tissue of the valve annulus between each first and second annulus position pair.

26. (New) The method of claim 19 including contracting tissue of the valve annulus between the first and second annulus positions associated with said at least one of said clips.

27. (New) The method of claim 19 wherein the clips are self-closing clips, which tend to move from said open configuration toward said closed configuration.

28. (New) A method for repairing a valve in a patient's heart comprising:
providing a plurality of clips, each having a first end, a second end, an open configuration and a closed configuration;

manipulating the first end of each clip with the clip in said open configuration to extend out from the valve annulus of one of the valve annulae of a patient's heart at a first annulus position and penetrate through an annuloplasty ring at a first ring position;

manipulating the second end of each clip with the clip in said open configuration to extend out from the valve annulus at a second annulus position and penetrate through the ring at a second ring position where the distance between the first and second annulus positions associated with at least one of said clips is greater than the first and second ring positions associated with said at least one of said clips; and

facilitating movement of each clip toward said closed configuration.

29. (New) The method of claim 28 including leading the first end of each clip through the annulus and ring with a first needle coupled thereto and the second end of each clip through the ring with a second needle coupled thereto.

30. (New) The method of claim 28 including leading the first ends of said clips through the annulus and ring with a first group of needles, each being coupled to one of said first ends through a flexible member coupled thereto and leading the second ends of said clips through the

ring with a second group of needles, each being coupled to one of said second ends through a flexible member.

31. (New) The method of claim 30 including pulling the flexible members to pass the first and second end of each clip through the ring.

32. (New) The method of claim 28 wherein the clips are self-closing clips, which tend to move from said open configuration toward said closed configuration.

33. (New) A method for treating a valve in a patient's heart comprising:
providing a plurality of clips, each having a first end, a second end, an open configuration and a closed configuration;
coupling a valve prosthesis to the valve annulus of one of the valve annulae in a patient's heart with the clips;
manipulating the clips to contract tissue of the annulus.

34. (New) The method of claim 33 including positioning each clip to extend along the ring in a circumferential direction.

35. (New) The method of claim 33 wherein coupling the prosthesis to the valve annulus comprises coupling the prosthesis to the mitral valve annulus of a patient's heart.

36. (New) A method for treating a valve in a patient's heart comprising:
providing a plurality of clips, each having a first end, a second end, an open configuration and a closed configuration;
manipulating each clip when in said open configuration to penetrate a valve prosthesis at first and second prosthesis positions and the valve annulus of one the valve annulae of a patient's heart at first and second annulus positions; and
manipulating the clips to contract tissue of the valve annulus between each first and second annulus position associated with one of said clips.

37. (New) The method of claim 36 including positioning the clip so that the distance between the first and second annulus positions associated with a respective clip is greater than the distance between the first and second prosthesis positions associated with said respective clip.

38. (New) The method of claim 36 wherein manipulating each clip comprises manipulating each clip to penetrate the valve prosthesis at first and second prosthesis positions and the mitral valve annulus of a patient's heart at first and second annulus positions.

39. (New) The method of claim 36 wherein the valve prosthesis is a mitral valve prosthesis.

40. (New) The method of claim 36 wherein the valve prosthesis is an annuloplasty ring.

In the Drawings:

The attached seven (7) replacement sheets of formal drawings replace all previous sheets of drawings. Applicants note that the dashed lines were made solid in Figure 3, the extraneous horizontal line through member 32 was deleted in Figures 3 and 4, elements 40 and 50 in Figures 4 and 5 have been formalized for consistency, the coil lines adjacent the suture in Figures 2, 7A, 8A and 10 clarified, and lines adjacent the posts of ring 60 and cuff 70 assemblies formalized.

Attachment: 7 Replacement Sheets